

REMARKS

Applicant thanks the Examiner for the courtesies extended to their attorney Ms. Chung in a telephone interview on July 27, 2007. During the interview, the Examiner stated that the amendments to claim 7 and 15 presented above will overcome the 35 USC 101 rejection as incorporating a physical transformation. The Interview Summary as prepared by the Examiner appears to be accurate and complete.

The Examiner has objected to the drawing, stating that the drawing fails to show a hinge radius. Applicant submits a replacement drawing sheet herewith and respectfully requests the Examiner to withdraw this objection.

Claims 7 and 12-15 stand rejected under 35 USC 101 as being directed to non-statutory subject matter. In particular, the Examiner has stated that the step of providing a prosthesis recited in claim 7 does not require a physical transformation. Applicant has amended claim 7 to recite a method for implanting a prosthesis, comprising implanting a selected prosthesis into the affected joint. Since the implanting of a selected prosthesis involves a physical transformation, applicant respectfully requests the Examiner to withdraw this rejection. Claims 7 and 12-15 are now allowable, since they have not, but could have been, rejected over prior art.

Claims 8 and 11 stand rejected as anticipated by Berry. This rejection is respectfully traversed.

As applicant has previously explained, system claim 8 specifically requires a set of at least two different intervertebral disk prostheses in which the prostheses closer to the head of the subject into which they are to be implanted ("in a cranial direction" in the words of claim 8) have hinge radii that are greater than the hinge radii of the prostheses that are relatively toward the base of the spine ("in a direction more caudal" in the words of claim 8). Berry discloses the opposite of what applicant claims, as can be seen from Berry's Fig. 12 and the supporting disclosure. Fig. 12 unmistakably shows the radii of curvature of the hinge surfaces increasing as one proceeds down the spine in the caudal direction. This increase in radii, contrary to the

claimed invention, is also illustrated at col. 8, line 18 – col. 9, line 8, of Berry: In the C1-C3 section R2, the hinge radius of curvature, is 0.188 inches, in the C4-C7 section R2 is 0.219 inches and in the L1-L5 section, R2 is 0.4375 inches. Furthermore, Berry does not correlate hinge radii or radii of curvature to the overall dimensions of the implants.

The Examiner continues to argue that claim 8 sets forth statements of intended use that do not define structure different from what Berry discloses. The Examiner seems to think that all claim 8 defines is two prostheses of different sizes that are the same structurally as Berry's prostheses. That is not so. The claimed system includes at least two different prostheses, it is true, but they differ in characteristics that do not flow from size *per se* but exist independently of mere size, the hinge radii and radii of curvature of the slide surfaces. The invention of claim 8 is a set of prostheses having a defined relationship and order to one another that Berry does not teach or suggest. In particular, there is no support for the Examiner's statement that "if it were so desired, there is nothing [in Berry] to preclude one having a greater radius from being selected to replace an intervertebral disk lying in a more cranial direction." Berry teaches exactly the opposite.

The Examiner's position may be characterized as saying, "The invention of claim 8 is nothing more than a group of prostheses having different slide radii, which Berry shows." However, claim 8 is directed to a system in which the prostheses are arranged in a specified manner so that they may be used by the physician to perform cervical intervertebral disk replacement surgery in a way that Berry not only fails to disclose, it teaches away from. Applicant requests the Examiner to consider that the system as claimed is an arrangement of prostheses in a particular order, the order in which the prostheses are arranged being a description of the structural relationship of the prosthesis elements. That order, which is a structural relationship set forth in claim 8, is part of the subject matter of the invention as a whole which may not be ignored for purposes of evaluating either anticipation or obviousness. The prosthesis systems of this invention and of Berry are not reversible in how they can be

implanted. That is, these prostheses have top and bottom aspects and cannot be implanted “upside down.” When prostheses are arranged in a system as claimed by applicant in claim 8, their surfaces are oriented relative to each other in a manner that is opposite of what Berry would suggest even if read as the Examiner proposes. Furthermore, the prostheses making up applicant’s claimed prosthesis system are different in structural respects that Berry does not disclose, either expressly or inherently. As a result, Berry not only fails to disclose the invention of claim 8 identically, it implicitly teaches away from it. The rejection of claim 8 as anticipated by Berry should be withdrawn. Since claim 11 depends from claim 8, it is not anticipated by Berry, either.

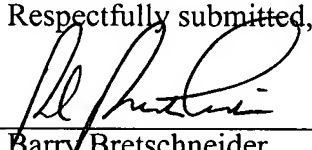
Claims 4 and 5 stand rejected under 35 USC 103(a) over Berry. This rejection is respectfully traversed.

Since Berry does not provide the disclosure against base claim 8 that the Examiner says it does, the obviousness rejection of these claims on Berry alone cannot stand. However, even if it were to be assumed that base claim 8 was properly rejected as anticipated by Berry, which it was not as explained above, applicant respectfully points out that Berry says nothing that would suggest that selecting any particular slide surface radii, let alone slide radii of greater and less than 18 mm, would have had any relationship to the performance of the prosthesis system, so it could not have been obvious from Berry by itself to have modified the prosthesis system of claim 8 to arrive at the subject matter of system claims 4 and 5. Thus, it is incorrect of the Examiner to reject claims 4 and 5 on the ground that “discovering the optimum or workable ranges of [the general conditions of the prior art] involves only routine skill in the art.” On this record, there is no evidence at all that persons of ordinary skill in the art would have had any reason to choose or optimize radii of slide surface curvature as claimed. The Examiner’s comments in rebuttal to this point on page 8 of the Action can be sustained only in hindsight, since Berry is devoid of any suggestion of what the Examiner now contends would have been obvious. Applicant recognizes that some of the law of obviousness may have changed in the aftermath of the *KSR* case, but in

that case the Supreme Court was at pains to make it clear that any finding of obviousness had to be based on finding a *reason* why a person of ordinary skill in the art would have done what is claimed. In this case, the Examiner still has not explained why any person of ordinary skill in the art would have done the opposite of what Berry discloses so as to arrive at applicant's invention. This rejection should be withdrawn

In the event that the transmittal letter is separated from this document and the Patent and Trademark Office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952**, referencing Docket No. **246472006000**.

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In the Drawings:

Please amend the drawing according to the replacement sheet attached hereto.